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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/527,971	03/17/2000	Geoffrey Rhoads	EWG-091-US	4496

23735 7590 08/26/2004

DIGIMARC CORPORATION  
19801 SW 72ND AVENUE  
SUITE 250  
TUALATIN, OR 97062

EXAMINER

WRIGHT, NORMAN M

ART UNIT	PAPER NUMBER
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2134

12

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/527,971

Applicant(s)

RHOADS ET AL.

Examiner

Norman M. Wright

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**NORMAN M. WRIGHT**  
**PRIMARY EXAMINER**

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Priority***

1. The examiner acknowledges applicant's amended claim to priority.

***Response to Amendment***

2. Claims 1-12 are outstanding and pending in this application.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1- 12, are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanford, II et al., U.S. Pat. No. 5,659,726 in view of Doi et al., U.S. Pat. No. 4,907,156, hereinafter respectively '726 and '156.
5. As per claims 1 and 5, '726 teaches a data embedding/watermark and extraction/detection method and system (computer implemented method) comprising: a system for detecting/ extracting an embedded image for host data, utilizing knowledge of the characteristic of the watermark or embedded data image for detection, detection/extraction filtering to remove aspect of host data that are not the embedded data image. See (abs., fig. 1, 5A-C; figs. 1, 2, 7-8 et seq., key, pair values, packet start flags; fig. 1, ReadBMPO, expalIO; col. 1, lines 14-25 et seq., summary, col.3, lines 37-40 et seq., col. 9, lines 33 et seq.). Not explicitly taught is the use of a filtering mechanism that enhances the signal to noise ratios "snr" of the embedded digital

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image/watermark. Both references are silent with respect to the filtering before detecting embedded data. The examiner takes official notice of both the motive and modification necessary for redundant filtering of digital data. It would have been obvious to one of ordinary skill in the art at the time of the invention, to augment the invention of '726 with multiple digital filtering mechanisms that filtered the data before and/or after the detection of an embedded image. One of ordinary skill in the art would have been motivated to perform such a modification because, the original digital image to be transmitted would have to be filtered to render as close a representation as possible to the original image. While the embedded digital image would require filtering to get as precise a verification image as possible.

6. Doi '156 teaches the use of spatial filtering of a digital image to enhance the SNR of a digital image based upon criterion selected from a user (abs., figs. 2a-2b, 7, and 9-18, elements 105, 107, 109, 101, col., 2, lines 49 et seq., col. 3, lines 15-25 et seq., col. 4, lines 45- col. 6, lines 10, col. 8, lines 14-20 et seq, col. 9-10, and col. 12, lines 29-45). It would have been obvious to one of ordinary skill in the art at the time of the invention, to augment the invention of '726 with a digital filtering mechanism that allows spatial filtering of a digital image for enhanced snr of a digital image or watermark. It would have been obvious to one of ordinary skill in the art at the time of the invention to perform such a modification because, a person of ordinary skill in the art would have been motivated to remove and clarify the digital image/watermark/embedded image through the use of spatial frequency filters to obtain a truer and clearer image of the object that is being obscured by noise or random transmission datum. A person of

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ordinary skill would have had a desire to utilize a computer and its associated programs as a means of obtaining as clear and as undistorted an original image as possible. The use of digital spatial filters have been utilized in the data processing art as a means of clearing up images from their background distortions/noise. '156 col. 1, lines 54-61, col. 2, lines 4-7, and '726, col. 1, lines 15 et seq., and col. 2, lines 1-20 et seq.. Additionally, the use of embedded data allows for security in that the embedded data may be verified.

7. As to claims 2-4, 726 teaches host data as image, audio and video data (col. 1, lines 20-25, and 34-40 et seq., col. 3, lines 63 et seq.).

8. As to claims 6-12, they distinguish over the rejected claims 1-5 by reciting the use of linear, nonlinear/signum operators, high pass and Laplace operator/filter and the combination of filters. While '156 explicitly teaches using linear, nonlinear, and multiple other filters/operators (col. 4, lines 62 et seq., col. 5, lines 33 et seq.). It does not explicitly recite the use of highpass or Laplace. It does however teach, that the invention of '156 may be utilized in other filters that match the item that is being modeled. The examiner takes official notice of both the motive and modification necessary for redundant filtering of digital data to obtain a specific result/model. It would have been obvious to one of ordinary skill in the art at the time of the invention, to augment the invention of '726 with multiple digital filtering mechanisms such as the Laplace, Signum or other filters on the digital data images. One of ordinary skill in the art would have been motivated to perform such a modification because, the use of and

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selection of digital filters are germane to the type of response or signal that is to be modeled.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

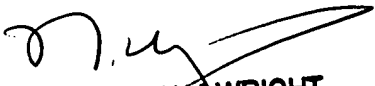
§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication should be directed to Norman M. Wright at telephone number (703) 305-9586.

  
**NORMAN M. WRIGHT**  
**PRIMARY EXAMINER**

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norman M. Wright whose telephone number is (703) 305-9586. The examiner can normally be reached on Mondays from 8am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Morse, can be reached on (703) 308-4789. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.